

U.S. Department of Commerce, Patent and Trademark	Atty. Docket No.	Application No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	TNCR.169US2	10/729,609
	Applicant(s)	C nf. No.
(Use several sheets if necessary)	Thomas McWaid	2888
	Filing Date	Group
	December 5, 2003	2856

U.S. Patent Documents

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
<i>DM</i>	1	2,691,887	Oct., 1954	Rinker.	—	—	
	2	2,728,222	Dec., 1955	Becker et al.	—	—	
	3	3,283,568	Nov., 1966	Reason.	—	—	
	4	4,103,542	Aug., 1978	Wheeler et al.	—	—	
	5	4,391,044	Jul., 1983	Wheeler.	—	—	
	6	4,441,177	Apr., 1984	Groh et al.	—	—	
	7	4,574,625	Mar., 1986	Olasz et al.	—	—	
	8	4,641,773	Feb., 1987	Morino et al.	—	—	
	9	4,669,300	Jun., 1987	Hall et al.	—	—	
	10	4,724,318	Feb., 1988	Binnig.	—	—	
	11	4,883,959	Nov., 1989	Hosoki et al.	—	—	
	12	4,902,892	Feb. 1990	Okayama et al.	250	307	
	13	5,146,690	Sep., 1992	Breitmeier.	—	—	
	14	RE33387	Oct. 1990	Binnig	—	—	
	15	5,162,653	Nov. 1992	Hosaka et al.	250	306	
	16	RE34331	Aug., 1993	Elings et al.	—	—	
	17	5,253,106	Oct., 1993	Hazard.	—	—	
	18	5,266,801	Nov., 1993	Elings et al.	250	306	
	19	5,307,693	May., 1994	Griffith et al.	—	—	
	20	5,308,974	May., 1994	Elings et al.	—	—	
	21	5,309,755	May., 1994	Wheeler.	—	—	
	22	5,347,854	Sep., 1994	Martin et al.	—	—	
	23	5,406,832	Apr., 1995	Gamble et al.	—	—	
	24	5,412,980	May., 1995	Elings et al.	—	—	
	25	5,414,690	May., 1995	Shido et al.	—	—	
<i>DM</i>	26	5,415,027	May 1995	Elings et al.	250	105	

Examiner

Date Considered

13 July 2005

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Dr	27	5,426,302	Jun., 1995	Marchman et al.	—	—	
	28	5,481,521	Jan., 1996	Washizawa et al.	—	—	
	29	5,488,862	Feb., 1996	Neukermans et al.	—	—	
	30	5,497,656	Mar. 1996	Kado et al.	73	105	
	31	5,509,300	Apr., 1996	Chamberlin et al.	—	—	
	32	5,513,168	Apr., 1996	Fujihara et al.	—	—	
	33	5,614,712	Mar. 1997	Ray	73	105	
	34	5,627,365	May., 1997	Chiba et al.	—	—	
	35	5,629,790	May., 1997	Neukermans et al.	—	—	
	36	5,705,741	Jan. 1998	Eaton et al.	—	—	
Dr	37	5,866,806	Feb. 1999	Samsavar et al.	73	105	
	38	6,028,305	Feb. 2000	Minne et al.	250	306	

Foreign Patent Documents

							Translation	
		Document	Date	Country	Class	Subclass	Yes	No
Dr	39	0361932	Sep., 1989	EP.	—	—		
	40	0536827	Sep., 1992	EP.	—	—		
	41	0594362	Oct., 1993	EP.	—	—		
	42	0633450	Jun., 1994	EP.	—	—		
	43	2249910	Oct., 1990	JP	—	—		
	44	2009409	Jun., 1979	GB	73	105		
	45	WO 88/04047	Jun., 1988	WO.	—	—		
	46	WO 94/08204	Apr., 1994	WO	—	—		
	47	WO 94/23888	Nov., 1994	WO.	—	—		
	48	05920	Feb. 1998	WO.	73	105		

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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	49	"A New Force Sensor Incorporating Force-Feedback Control for Interfacial Force Microscopy", S. Joyce et al., Rev. Sci. Instrum., vol. 62, No. 03, Mar. 1991, pp. 710-715.
	50	"From Molecules to Cells: Imaging Soft Samples with the Atomic Force Microscope", M. Radmacher et al., Science, vol. 257, Sep. 25, 1992, pp. 1900-1905.
	51	"Dimensional Metrology of Phase-Shifting Masks with Scanning Probe Microscopes," J.E. Griffith et al., SPIE, vol. 2087, Photomask Technology and Management, 1993, pp. 107-118.
	52	"Silicon Wafer Thermal Processing: 300 mm Issues," H. Huff et al., Future Fab International, 1996, pp. 35-49.
	53	"Atomic force microscopy for high speed imaging using cantilevers with an integrated actuator and sensor," S.R. Manalis et al., Appl. Phys. Lett., 68(6), Feb. 5, 1996, pp. 871-873.
	54	"Single-Tube Three-Dimensional Scanner for Scanning Tunneling Microscopy," G. Binnig et al., Review of Scientific Instruments, vol. 57, No. 8, Aug. 1986, pp. 1688-1689.
	55	"Magnetic Force Microscopy (MFM)," P. Grutter et al., Springer Series in Surface Sciences, Scanning Tunneling Microscopy II, vol. 28, Springer-Verlag Berlin Heidelberg 1992, pp. 152-207.
	56	"A Stand-Alone Scanning Force and Friction Microscope," M. Hipp et al., Ultramicroscopy, 42-44(1992), Elsevier Science Publishers B.V., pp. 1498-1503.
	57	"New Scanning Device for Scanning Tunneling Microscope Applications," R. Koops et al., Review of Scientific Instruments, vol. 63, No. 8, Aug. 1992, pp. 4008-4009.
	58	"Scanning Tunneling Microscopy," G. Binnig et al., Helvetica Physica Acts, vol. 55, 1982, pp. 726-735.
	59	"Two-Scanning Tunneling Microscope Devices for Large Samples," G.B. Picotto et al., Review of Scientific Instruments, vol. 64, No. 9, Sep. 1993, pp. 2699-2701.
	60	"A High Precision Micropositioner Based on Magnetostriction Principle," W. Wang et al., Review of Scientific Instruments, vol. 63, No. 1, Jan. 1992, pp. 249-254.
	61	"Design and Assessment of Monolithic High Precision Translation Mechanisms," S.T. Smith et al., Journal of Physics E: Scientific Instruments, vol. 20, Aug. 1987, pp. 977-983.

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	62	"Novel Optical Approach to Atomic Force Microscopy," G. Meyer et al., Applied Physics Letters, vol. 53, No. 12, Sep. 1988, pp. 1045-1047.
	63	"Long Range Constant Force Profiling for Measurement of Engineering Surfaces," L.P. Howard, Review of Scientific Instruments, vol. 63, No. 10, Oct. 1992, pp. 4289-4295.
	64	"The National Institute of Standards and Technology Molecular Measuring Machine Project: Metrology and Precision Engineering Design," E.C. Teague, J. Vac. Sci. Technol. B, vol. 7, No. 6, Nov./Dec. 1989, pp. 1898-1902.
	65	"Evaluating the Sensitivity of a Fiber-Optic Displacement Sensor," W.C. Oliver, Nano Instruments, Inc., Technotes, no date available.
	66	"To Measure a Molecule," F. Flam, pp. 21-24, no date available.
	67	"The National Institute of Standards and Technology Molecular Measuring Machine: A Long-Range Scanning Tunneling Microscope for Dimensional Metrology," E.C. Teague, Microbeam Analysis, 1989, pp. 545-547.
	68	"Products for Micropositioning," Product Information Brochure published by Physik Instrumente (PI) GmbH & Co., no date available.
	69	"Fiber Optic Proximity Sensors," Product Information Brochure published by Phone-Or, Ltd., Fiber Optic Sensors of Ashkelon ISRAEL, no date available.
	70	"Series 88 Fiber-Optic Displacement Sensors," G. J. Philips, Sensors, Feb. 1995.
	71	"Nanometrology," E.C. Teague; Proceedings of Scanned Probe Microscopy; STM and Beyond, an Engineering Foundation Conference, Santa Barbara, CA Jan. 1991.
	72	"Microlever with combined integrated sensor/actuator functions for scanning force microscopy," J. Brugger et al., Sensors and Actuators A, 43, 1994, pp. 339-345.
	73	"Rocking-beam force-balance approach to atomic force microscopy," D.A. Grigg et al., Ultramicroscopy, 42-44, 1992, pp. 1504-1508.
	74	"Scanning force microscope springs optimized for optical-beam deflections and with tips made by controlled fracture," M.G.L. Gustafsson et al., J. Appl. Phys., 76(1), Jul. 1, 1994, pp. 172-181.

Examiner

Date Considered

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


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	75	"Thermal Imaging of Electronic Materials and Devices Using the Atomic Force Microscope," A. Majumdar et al., Proceedings of the SPIE--The International Society for Optical Engineering, 1993, Abstract Only.
	76	"Micromachined AFM transducer with differential capacitive read-out," J. Bay et al., J. Micromech. Microeng., vol. 5, 1995, pp. 161-165.
	77	"Dimensional metrology with scanning probe microscopes," J. Griffith et al., J. Appl. Phys., vol. 74, No. 9, Nov. 1, 1993, pp. R83-R109.
	78	"A rocking beam electrostatic balance for the measurement of small forces," G. L. Miller et al., Rev. Sci. Instrum., vol. 62, No. 3, Mar. 1991, pp. 705-709.
	79	"Resonant silicon sensors," G. Stemme, J. Micromech. Microeng., vol. 1, 1991, pp. 113-125.
	80	Written Opinion dated March 29, 2001
	81	International Search Report dated August 30, 2000
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